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**From:** Jones, Aaryn [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C2BED08A5BD54DC5A9D59C5A345C9892-JONES, AARYN]  
**Sent:** 12/8/2017 2:30:54 PM  
**To:** Simonson, Davy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=85befa3309014aa5af2ba25870a05a0a-Simonson, Davy]  
**Subject:** PFAS fact sheets

Hi Davy,

Just for your future reference -- these ITRC fact sheets were recently released and timely. In general, the broadest term is "PFAS", which is for "per- and polyfluoroalkyl substances". "per" means that you have a carbon chain where EVERY hydrogen-carbon bond has been replaced by a fluorine-carbon bond. Most of the compounds we are looking at historically and recently are "perfluorinated alkyls", including C8/PFOA, PFOS, and GenX/HFPO-dimer acid. "poly" means that not all the hydrogens in the chain were replaced, so there are some hydrogens and some fluorines attached to the carbon chain.

That carbon-fluorine bond is what makes these chemicals so desirable (strong bond) as far as characteristics, but also what makes them so persistent in the environment. Then there are different "end groups" they put on these fluorinated carbon chains that make them behave like a surfactant, and can substantially change how they interact with soil/water (and not to mention toxicity). The most common end groups are carboxylic acids or sulfonates (PFOA is the carboxylic acid end group, PFOS is the same exact chain with a sulfonate instead of a carboxylic acid).

<http://pfas-1.itrcweb.org/>

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